SCIENCE & GOVERNMENT REPORT

26th Year of Publication

The Independent Bulletin of Science Policy

Volume XXVI, No. 6 | P. O. Box 6226A, Washington, D. C. 20015 | © April 1, 1996

It's the R&D Budget Season, and Confusion Reigns

The stalemate between the White House and Congress means that the budget just issued by the President for the coming fiscal year provides little guidance about the direction and scale of government support for research and development.

Delivered to Congress on March 19, the budget was accompanied by self-congratulatory declarations from the White House, which tooted about proposed R&D spending going up by $1 billion, to $73 billion, without acknowledging that inflation is there, too, and the "real" dollar total has been slipping in recent years. The White House also claims that R&D spending power has benefited from savings produced by "reinventing" government. But the arithmetic of that operation defies verification.

Congressional Republicans declared that the Clinton budget disgracefully neglects basic research in favor of pork-barrel "corporate welfare" administered by the Commerce Department—which they again vowed to abolish, along with several other agencies.

Taunting them, the biggest R&D increase in the budget, 16 percent, was assigned to the Department of Commerce. At a press briefing a day earlier, Commerce Secretary Ron Brown confidently asserted that the Republican drive to eliminate his Department "has lost all its momentum."

Behind the NIH Budget Boost—P. 3
The Plan to Oust Chief of NAE—P. 6

The basic research increase proposed by the President is paltry—$278 million, a 2 percent gain, which would bring the total to $14 billion. Increases of 4 per cent each were proposed for the National Institutes of Health and the National Science Foundation. In dollar amounts, R&D in the Department of Energy would decline by 6 percent, while overall funding for NASA would about stand still, as would the research programs of the Department of Agriculture.

Congressional Democrats concerned with R&D matters have no great affection for the treatment given their interests by the Clinton White House, but with nowhere else to turn, they denounced the reigning Republicans as hostile to science and the use of R&D to create jobs.

Never before has there been such inter-party snarling about the federal government's proper role in research, or so many justifiable fears about the future of many government R&D organizations and programs. The casualty list of entire agencies is short, but impressive. Abolished by Congressional edict are the Congressional Office of Technology Assessment, the Bureau of Mines and the National Biological Service, though the remnants of the latter have been consigned to the US Geological Survey for further disposal. The demolitions, budget trimmings and staff downsizings in the surviving agencies have left their marks on the psyche of the federal R&D bureaucracies. The trauma is felt in universities and other non-government institutions served by the agencies.

The current and proposed levels of federal R&D spending cannot be simply stated, as was frankly acknowledged in a press briefing on budget day by John Gibbons, the President's Assistant for Science and Technology. The 1997 budget comes in what he described as "extraordinary circumstances, since, for most of our agencies, Congress has yet to provide a FY96 appropriation."

Declaring, "Friends, this has been a grim year for science budgets," Gibbons went on to observe that, with many

(Continued on Page 3)

In Brief

In recent years, funds for the National Science Foundation have just about kept steady with inflation, and the results show up clearly in statistics on NSF awards: In 1995, they totaled 19,393; in 1996, they declined to 19,103; for the coming fiscal year, the estimate is 19,597. Over the three-year span, the average annualized award increased from $72,800 to $78,700 and the funding rate—number of competitive awards as a percentage of proposals reviewed—rose from 30 to 31 percent.

Asked at a budget briefing to account for the seeming paradox of financial crunch and what he described as "a new golden age of discovery," NSF Director Neal Lane said, "We're living off past capital."

Speaking of capital, the Howard Hughes Medical Institute is maintaining its position as keeper of the world's biggest philanthropic bundle. Hughes, which supports biomedical research and scientific education, reports that its endowment reached $8.2 billion in 1995, an increase of $2.6 billion since 1990. Disbursements during that period totaled "over $1.5 billion."

Foreign enrollments in PhD engineering programs in the US have begun to drop, according to the American Association of Engineering Societies. Noting that in recent years, students from abroad have received over half of US doctorates in engineering, Richard Ellis, AAES Director of Research, said the change is in part due to the development of schools abroad. At the Korean Advanced Institute of Science and Technology, Ellis observed, the annual production of graduate degrees has risen from 800 in the 1970s to 8000 in the 1990s.

A Tight Budget Until at Least 2000, Gibbons Says

After volunteering that government budget affairs are warped beyond forecast, if not comprehension, John Gibbons, the President's Assistant for Science and Technology took questions March 19 at the annual R&D budget briefing that comes with his job. The ritual is attended by the science press and anxious watchers from the Washington science and higher-education lobbies. Joining Gibbons was the research chief from the Office of Management and Budget, T.J. Glauthier, Associate Director for Natural Resources, Energy and Science.

No grand revelations were forthcoming, but the two, earnest in manner, added some policy dimensions to the bare bones of the budget documents.

Gibbons opened the session with a politically tinged prepared statement that chastised the Republican-controlled Congress for planning "a one-third cut in research. The bulk of those cuts," he said, "would have come from outright elimination of many of the programs that help preserve key areas of basic science, and that fuel the economy with technological innovation." Noting that many R&D agencies still lack final appropriations for the current fiscal year, he added that "no other Congress in our nation's history has been so late in providing appropriations to the President."

Many of the questions, however, were focused on the Administration's own plans for not-inconsiderable reductions in research spending, despite Gibbons's assertion that the "President has opposed cuts in science and technology at every step along the way."

Regarding R&D reductions en route to the Administration's goal of a balanced budget in the year 2002, Gibbons said that "the toughest time is going to be just around the millennium, when we go through the narrows, around the year 2000."

Asked for details, he said, "Some of the S&T, the so-called priority programs, we will try to hold level, which means we're taking away money from other places, because we're on a slightly negative-sum game for our discretionary program. Others will undoubtedly see a decrease in real earning power. It's a little hard to say exactly how it's going to show up in individual programs in these priorities," Gibbons said, "but we're not going to see a lot of increases out there until we get well past the turn of the century." Glauthier added, "A number of programs have been identified, such as the Space Station, and those programs are being held, protected. They're either being held constant or increasing with inflation. Other programs, as a result, have been across-the-board reduced, of which 2000 is the steepest year."

In response to a question about a 40-45 percent increase in funds for R&D construction, Glauthier said the jump reflected a shift "to more up-front funding of facilities, which is consistent with what many agencies in government do." When the Pentagon builds an aircraft carrier, he said, it "gets all the appropriation up front to do that. But that has not been the practice with NASA or the Department of Energy's facilities. So, we are trying to move in that direction."

Asked why the inflation adjustment for NIH grantees was reduced from 4 to 2 percent, Gibbons replied the savings would be applied to speeding up construction of a new Clinical Center on the Bethesda, Md., campus, budgeted for $310 million, and the funding of approximately 200 additional grants. NIH Director Harold Varmus, he said, is "streamlining the system and at the same time pressing pretty hard. And I understand," Gibbons said, "that a 2 percent increase in the cost of living ... is a tight number. But we are trying to find every possible way to maintain the maximum dollar flow into those research grants."

Another question concerned the big increase proposed for energy-efficiency and pollution-control R&D in the Department of Energy budget—up $131 million, for a total of $548 million.

Gibbons described the program as "critical" and "absolutely central" to national security "because of our mounting imports of oil"—far greater now, he pointed out, than "even during the crises of the '70s."

"At the same time," he continued, "global warming provides us with a real challenge to begin to develop ... insurance methods to slow down the rate at which we put carbon dioxide into the atmosphere." A devoted environmentalist from far back, Gibbons noted that "the US accounts for about 25 percent of the total global additions to the atmosphere. This is an investment that goes directly to two very strong publicly justifiable benefits."

Addressing the same subject, Glauthier said the large increases proposed for fiscal 1997 were to compensate for Republican budget cuts. The Administration's aim, he said, is to "get back to the 1995 levels. It's not as high as we'd like to have it," he added, "but we're just trying to get it back on track, so that there will be a balanced program across all these different program areas."

Asked about progress toward the Administration's previously stated objective of reducing military R&D in favor of civilian research programs, Gibbons replied: "It hasn't moved much on this round. I think it's just about the same as last year"—47 percent civilian, up from 42 percent when Clinton took office.

© 1996, Science & Government Report, Inc.

Editor and Publisher
Daniel S. Greenberg

Associate Publisher
Wanda J. Reif

Circulation Manager
Glen D. Grant

Published by Science & Government Report, Inc., twice monthly, except once each in January, July, August, and September. Annual subscriptions: Institutions, $490.00 (two years, $840.00). Bulk and individual rates upon request. Editorial offices at 3736 Kanawha St. NW, Washington, DC 20015. Tel. (202) 244-4135. For subscription service: PO Box 6226A, Washington, DC 20015. Tel. 1-800-522-1970; in Washington, DC 785-5054. Reproduction without permission is prohibited. SGR is available on University Microfilms International. Claims for missing back issues will be filled without charge if made within six weeks of publication date. ISSN 0048-9581.

NIH's Congressional Angel Explains Success

While most federal research agencies are in the fiscal doldrums, the National Institutes of Health fared unexpectedly well this year, receiving a much-envied 5.7 percent increase at the initiative of Congressional supporters.

That brought the current NIH budget up to nearly $12 billion, $165 million above the figure proposed by the White House—quite a coup, considering that the triumphant, budget-cutting Republicans had initially slated NIH for a 5 percent reduction per year, over seven years. How was the gain achieved?

By unrelenting lobbying, according to the widely acknowledged Congressional architect of NIH's growth, Rep. John Porter (R-Illinois), Chairman of the NIH Appropriations Subcommittee. Health research has traditionally been a bipartisan Congressional favorite, but all fiscal signs pointed down last year as the new Republican majorities and the Clinton White House competed to demonstrate frugality.

Speaking March 13 to Research America, a Washington biomedical-research lobby, Porter, a passionate advocate of the cause, said that in response to the gloomy budget prospects, he telephoned 10 university presidents and asked them to arouse their board members in support of NIH.

He said he also took five new members of his Subcommittee to NIH for a daylong visit, and, at his request, NIH Director Harold Varmus brought a group of fellow Nobel laureates to testify to the Subcommittee.

As is usually the case when an Appropriations Chairman feels strongly, Porter's Subcommittee endorsed his proposed 5.7 increase, and then, in a double feat of legislative magic, the full Appropriations Committee went along and so did the House—even as the leadership was proclaiming the urgency of reducing federal spending.

The Senate Appropriations Committee voted for a minimal increase, a mere 2.7 percent. But in January, in a confused night of voting over continuing resolutions to cover the becalmed NIH budget, 5.7 percent was approved, along with another rare benefit for NIH, uninterrupted funding for the remainder of the fiscal year.

Looking ahead, Porter said he hopes to achieve a 6.5 percent increase for NIH, again exceeding the White House request, which calls for a 3.9 percent boost. But he warned that NIH's good fortune in the present fiscal year is likely to generate a backlash as Congress works on appropriations for fiscal 1997.

In the zero-sum process that governs appropriations, he pointed out, winners become targets. He urged the biomedical community to lobby the Congress, local newspapers and community organizations, and to focus efforts on two key members, House Appropriations Chairman Robert Livingston (R-La.) and Budget Chairman John Kasich (R-Ohio).

Porter said he will now enlist 100 university presidents, and include the spouses of his Subcommittee members on the next visit to NIH. And he reminded his audience that, while polls regularly show strong public support for biomedical research, "polls don't vote."

'97 Muddle *(Continued from Page 1)*

budgets still short of final enactment, the customary comparisons of one year to the next "are, at best, guesses. Informed guesses," he added, "but guesses nonetheless."

Adding to the numerical complications are efforts by the White House to induce Congress to vote "add-backs" to Presidential requests for the present fiscal year that came out short on Capitol Hill, including $40 million for NSF.

The newly proposed Presidential budget is for fiscal 1997, beginning next October 1. But Congress and the White House have not yet agreed on budgets for many agencies, including NASA and NSF, for fiscal 1996, which is half over. Though Gibbons hung the blame on Congress, the impasse is actually due to White House vetoes of fully passed Congressional bills containing items that the President deemed objectionable.

The stranded agencies keep operating on a string of continuing resolutions, often at reduced financial levels, and with painful memories of a month of government shutdowns that few thought would actually occur. Even as this muddle persists, the budget gnomes have begun drafting the fiscal 1998 budget.

Washington, of course, will continue to be a major source of finance for R&D, but overall, the level of purchasing power is receding, and relatively few programs are so politically buoyant that their viability is assured.

Among the favored few, the Space Station is safe because Clinton needs the California aerospace vote for reelection, and a partnership in the project—subsidized by the US—helps keep the ex-Soviet space establishment out of mischief. For Republicans, the Station is untouchable as a legacy of the Reagan Administration and a symbol of American muscle.

Biomedical research is once again the beneficiary of influential legislators who regard the National Institutes of Health as a holy cause, above politics. Virtually all other agencies and programs live dangerously.

Congress is now going through the annual ritual of committee hearings on the President's proposals for the coming fiscal year—with time out to pass temporary bills to cover this year's spending. With the summertime appropriations season running into the Presidential conventions and campaign, the ideological atmosphere is likely to be more charged than ever. No one expects predictability or stability to return soon to government support of science and technology.—DSG

Frank Press Pushes on With His Science-Policy Plan

Responding to two high-ranking scientific critics of his reform proposals for national science policy, Frank Press, the retired President of the National Academy of Sciences, says they misunderstand major elements of the plan and the realities of budgeting for research.

His rejoinder keeps alive the only flicker of a debate now going on science policy in the new era of skimpy resources. Whereas others distressed by the fiscal prospects are clamoring for more generous treatment by the White House and Congress, Press and colleagues are arguing for a clear accounting of the now-blurry federal role in science and technology and greater reliance on peer-reviewed quality in distributing research money. In essence, he's saying the money is sufficient, if it is confined to supporting topflight research.

Press's response was directed at criticisms raised by the senior officers of the American Physical Society, President J. Robert Schrieffer and President-elect D. Allan Bromley. In a statement issued February 28, when Press testified to the House Science Committee, they rejected two key recommendations in the so-called Press report, issued last November, *Allocating Federal Funds for Science and Technology* [SGR, December 1, March 15]. Lacking an invitation to testify, they had their views distributed by hand at the hearing and later by fax.

The Schrieffer-Bromley dissent focused on Press's recommendation for preferential treatment for academic research over national labs, and on his proposal for revamping federal budget categories to distinguish science and technology from the many other activities packaged under the heading of research and development. If that were done, the Press report says, the federal R&D budget of some $70 billion would be seen to contain only about $35-$40 billion for science and technology, with the balance going mainly to hardware development and testing for the Pentagon and NASA.

In a response to the APS officers, issued March 16, Press noted first that they were in agreement with most of the recommendations in his report. But none of those is as important for remaking the system as the two that drew fire from Schrieffer and Bromley, and Press did not permit their criticisms to go unchallenged.

Addressing the accusation that he is "pitting universities against national laboratories," Press noted that the report acknowledges "that there are superb federal laboratories that should not be weakened." The report, he argued, "pits work at both types of institutions against a common measure: external merit review." While acknowledging "that university research is not always of higher quality than that of federal laboratories," he continued, the report "commends universities for combining training and research, a key factor in elevating American science and technology to a world leadership position."

Work that is best performed in federal labs should certainly go there, Press stated in his response, but when it's a toss-up between the two sectors, "linkage to education and other factors make federal dollars go further in universities."

Schrieffer and Bromley had argued that separating science and technology from R&D in the federal budget "would erect an artificial barrier between sets of activities that are closely related," and would deny policymakers and planners in Congress and the Executive agencies "maximum flexibility in changing the mix of activities that constitute the federal R&D program."

Press sounded particularly impatient with that contention, arguing, in response, that the two APS officials "appar-

(Continued on Page 5)

A Cool Response at OSTP

The White House Office of Science and Technology Policy doesn't like the thrust of the Press report, feeling that it's politically naive, slights the R&D management achievements of the Clinton Administration and undercuts the President's politically beleaguered industrial-technology programs. Heretofore genially reticent about the report, OSTP Director John Gibbons gave it a polite but direct brushoff in response to a question March 19 at his annual R&D budget briefing.

Describing R&D policy "as certainly worthy of a lot of different studies," Gibbons said the report "complements the work that OSTP and the NSTC [National Science and Technology Council—a government-wide Gibbons creation] did back in '94 in terms of the future role of science and technology in our national enterprise."

He added: "We are concerned about the pragmatic feasibility of making revolutionary changes in the way Congress organizes its committees, in the way whole structures of the institutions of science go."

[SGR editor's note: Press and company can properly regard that assessment as a serious overstatement of their recommendation for conducting a Congressional overview of the whole S&T budget before the various parts are distributed to the customary committees.]

Gibbons continued that he preferred " to continue to invest in the very promising young Science and Technology Council, which, in effect, integrates science and technology across the Executive Branch of government, and provides the very kind of coherence that the Press committee was talking about."

The Press report's recommendation on industrial research, Gibbons suggested, "has been misinterpreted by many people as saying that somehow, it's okay to leave this—what's been called 'the valley of death' between fundamental science and the market. If you talk with Frank Press, you find that's not at all what they had in mind, but it has been interpreted that way."

House Science Republicans Assail Clinton Budget

As the focal point for R&D policy deliberations on Capitol Hill, the House Science Committee quickly broke out in partisan bickering following the release of the President's budget for next year.

The extravagant rhetoric rolling out of the faxes continues the ideological themes that evolved during the opening year of the new Republican rule on Capitol Hill and foreshadows the 1996 legislative season.

While the White House proclaimed that "For the fourth consecutive year, President Clinton is asking Congress to increase funding for science and technology," Science Committee Chairman Robert Walker (R-Pa.) expressed a different perception on the following day. The President's R&D spending plans, he said, are "a blow to basic research and a boon to industrial policy masquerading as science."

Rather than advancing science, Walker asserted, the Clinton budget "would designate scarce federal resources for corporate goodies like the Advanced Technology Program"—the Commerce Department industrial-aid scheme that Congressional Republicans have voted to eliminate.

"While funding in support of Clinton industrial policies receive large increases from FY 96," Walker continued, "basic research gets nothing."

Not so, by the White House's reckoning, which claims a $278 million increase for basic research. By Walker's account, the Clinton increase is merely $12 million, whereas his Committee, he boasts, proposes a $312 million increase.

Walker's expressions of dismay with R&D Clinton style were echoed by an ideologically fiery colleague, Rep. Dana Rohrabacher (R-Calif.), Chairman of the Science Committee's Subcommittee on Energy and Environment. "This budget gives the lie," he faxed, "to the Clinton Administration's claim that they support more money for energy research."

Rohrabacher added that "it's time that the scientific organizations which have been criticizing the Congress for 'cutting research and development,' realize the enemy is at 1600 Pennsylvania Ave."

The Democratic minority on the Science Committee responded with a Views and Estimates Report of the budget, a document intended for the House Budget Committee, and sure to be ignored there. Charging that the Science Committee has been unproductive under Republican leadership, the Democrats let loose a barrage of complaints, under the heading "The Dark Vision of Republican S&T Policy."

Many failings were alleged, including hostility to "important science whose findings may conflict with the Majority's deeply held beliefs"—a reference to doubts expressed by Rohrabacher and colleagues about the existence of the ozone hole and global warming. "Good science is being smothered in its crib," the Democrats said, "because the majority fear what that science may tell us when it grows up."

The minority member behind these expressions, of course, is Rep. George Brown (D-Calif.), ousted from the Science chairmanship by the 1994 election.

Brown, who is only slightly less unhappy with Clinton than he is with the Republicans, said the small S&T increase proposed by the President "is better than I feared." To which he added that "as long as the President is going to be courageous and raise the flag under enemy fire, I wish he had raised it a little higher."

Press Report

(Continued from Page 4)

ently consider the current R&D budget to be a policy tool in which rationale analyses and trade-offs are made among categories. The [report-writing] committee discussed this issue thoroughly and concluded that the current R&D budget does not work that way."

R&D, Press observed, "is never considered as an integrated whole during the development of the President's budget or given an overall review by Congress." In reality, he asserted, the federal R&D budget is "a jumble, containing many items, particularly in the defense and space parts, which are difficult to defend as research and development in any commonly understood sense....The view that the conventional $73 billion [R&D] aggregation is essentially meaningless in making policy," he continued, "was expressed to the committee by many people—from the Congress, the Office of Management and Budget, the Office of Science and Technology Policy, and agency officials."

Moreover, he went on, when money is shifted within the defense R&D budget, it generally goes toward development, at the expense of science and technology. "One senior DOD official commented to us," Press reported, that 'it is all one way;' that is, from long-term investments in the S&T base to shorter-term politically more urgent categories related to the development of weapons systems.

"Drs. Schrieffer and Bromley prefer to hope (as we do) that the opposite is possible," Press stated, "but neither history nor data are comforting. For example," he noted, "the defense S&T base declined as a proportion of the total defense RDT&E [research, development, testing, and evaluation] in most of the last 20 years, from 17.1 percent in 1973 to 11.8 percent in 1994."

With their backers moving on to other matters, reports on the obscurities of science policy usually fade from public notice immediately following the flurry of attention that accompanies their release. Vowing at the outset to keep pushing, Press has actually done so since the report was released last November, addressing scientific groups and, with his appearance before the House Science Committee, achieving the first Congressional hearing on the report.

His impact so far appears to be modest. The Press report has not ignited a great debate, even within the limited confines of the scientific community. But, because of his persistence, it's still discussed in policy circles and noticed in Congress. Whatever else can be said about it, it's alive.

DOD Study Sees Need to Rely on Civilian R&D Sector

A study commissioned by the Pentagon's Advanced Research Projects Agency says the military services will increasingly have to rely on commercial technologies because of the shrinking share of national R&D financed by the federal government.

The study, issued last week by the Potomac Institute for Policy Studies, a Washington research organization, was conducted over the course of a year by a panel of military and civilian specialists, chaired by retired Marine Corps Commandant Al Gray. Its findings reflect high-level thinking within the Defense Department, though the actual progress toward adoption of a so-called dual-use technology has been slow.

The study and its recommendations are another manifestation of the shifting roles of government and the private sector in the financing and management of R&D. Of the $172 billion that the US spent on R&D in 1994, according to the National Science Foundation, the federal government provided 36 percent, while industry accounted for 59 percent and performed 72 percent of the work. Meanwhile, the military share of government R&D has sharply dropped from two-thirds at the height of the Cold War to 53 percent last year.

Gray told a press briefing that the military's own resources for R&D are now dwarfed by the civilian sector to the point where important advanced technologies are quickly obtainable only from commercial sources. The traditional choice used to be "make or buy," he said, but in today's circumstances "it is far quicker to buy." For some items, he said, there is no alternative.

The study, he said, found that while defense research had risen by 60 percent since the 1960s, commercial R&D has probably gone up by 460 percent. He said the potential for equipping the military with dual-use technologies extends over a wide range of products. Even armored fighting vehicles can be equipped with commercial components, he noted, though in many instances, close collaboration with industry is necessary to satisfy military requirements for ruggedness and maintenance.

Gray said the Pentagon had derived useful lessons from the Technology Reinvestment Project (TRP), which aimed to promote research that could serve both military and civilian purposes. Congressional Republicans, however, have voted to phase out the program, which they deride as another example of "corporate welfare" sponsored by the Clinton Administration.

A summary of the Potomac Institute report credits TRP with establishing "a new 'mindset' to create government and private sector relationships, leading to technologies and products that would not otherwise happen." The report says that dual-use principles should now be adopted throughout the Pentagon "to cover all phases of the product development life-cycle, from research to insertion."

To accomplish this, it says, the Secretary of Defense should establish a Joint Dual-Use Office, with a high-ranking advisory council and strong backing from the top.

Serving with Gray on the panel were retired Generals Glen Otis, US Army, and James Clapper, US Air Force; retired Admiral Walter Cantrell; Edward E. David Jr., a former Presidential Science Advisor; Hal Edmondson, retired Hewlett-Packard Vice President; Howard Schue, Vice President of Technology Strategies and Alliances, and James J. Richardson, formerly with the Institute for Defense Analyses.

The Ouster Plan at NAE

Members of the governing Council of the National Academy of Engineering have settled on a strategy to oust the controversial President of the organization. The battle is expected to be long, nasty, and destined for court.

The object of the ouster movement, Harold Liebowitz, elected last year over the official candidate of the NAE establishment, has been publicly silent in recent weeks. But, according to NAE sources, he intends to hang on, though he has been relieved of his duties and pay as Vice Chairman of the National Research Council, the operating arm of the NAE and the National Academy of Sciences [SGR, March 1, 15].

The governing Council of the NAE and various corporate and academic eminences of engineering have urged him to resign—some of them hinting or explicitly telling the 72-year-old Liebowitz that he's unable to handle the job. However, the NAE bylaws do not contain any provision for removal of the President. The Council has engaged legal advice, and so has Liebowitz, who says he intends to serve out his full Presidential term, which has another five years to run.

According to NAE Vice President Morris Tanenbaum, the designated spokesman for the ouster movement, the NAE membership will be asked to approve a bylaw amendment that would establish a presidential recall procedure. "The bylaws are an instrument of the members," Tanenbaum told SGR, "and the members can change the bylaws." He declined to say where it is so written, nor would he discuss the uncertain matter of the NAE President's role in calling the Council to meet. The bylaws are unclear on that matter, and the Council has not met since mid-February, when it unsuccessfully confronted Liebowitz with a resignation demand.

Tanenbaum said the bylaw proposition had not yet been communicated to the membership. Asked when it would be, he replied, "This is an Academy matter."

Another NAE member told SGR, "There's an intensive effort to get the legalistics in place and get him out."

In Print

(Continued from Page 8)

From the University of Indiana-Bloomington, Poynter Center for the Study of Ethics and American Institutions:

Moral Reasoning in Scientific Research: Cases for Teaching and Assessment (100 pp., $7), discussions and exercises organized around six realistic case studies designed "to enhance students' ability to develop well-reasoned responses to the kinds of ethical problems that are likely to arise in the practice of science"—plagiarism, treatment of inconvenient research data, disputes over ownership of lab notebooks, etc. The materials were by developed by Muriel J. Bebeau, of the University of Minnesota Center for the Study of Ethical Development, and a group at the University of Indiana.

Order from: Kenneth D. Pimple, Poynter Center for the Study of Ethics and American Institutions, 410 North Park Ave., Indiana University, Bloomington, Indiana 47405; tel. 812/855-0261; fax 812/855-3315; e-mail pimple@indiana.edu

---

From the General Accounting Office (GAO), no charge:

Medical Device Regulation: Too Early to Assess European System's Value as Model for FDA (GAO/HEHS-96-65; 48 pp.), says the European Union is still putting into place regulatory procedures for medical devices, of which there are said to be some 100,000 products in 1700 categories, including surgical lasers, pacemakers and X-ray devices. Thus, it's premature for comparing lengths of review and other sensitive issues for the FDA, the GAO concludes. Padding out the report with lesser matters, the GAO notes that the promotion of trade, a major function of the EU system, is not a responsibility of the FDA; also that the US system bases approval on safety and effectiveness, whereas in the EU, "devices are generally evaluated for safety and their ability to perform as the manufacturer intended." The report was requested by Senator Nancy Kassebaum, Chairman of the Labor and Human Resources Committee.

Scientific Research: Continued Vigilance Critical to Protecting Human Subjects (GAO/HEHS-96-72; 46 pp.), says the surveillance systems of NIH and FDA are stretched thin and that institutional review boards (IRBs) at universities and other research institutions are also strained by heavy workloads. The GAO study, requested by Senator John Glenn, ranking Democrat on the Committee on Governmental Affairs, concludes that federal and institutional attention to the protection of human rights has "heightened the research community's awareness of ethical conduct standards." But the report repeatedly raises doubts about the resources devoted to assuring protection of human subjects, noting, for example, that "In some cases, the sheer number of studies necessitates that IRBs spend only one or two minutes of review per study." Both NIH's Office for Protection from Research Risks and FDA's Center for Drug Evaluation Research were criticized for relying on institutional reports and making infrequent site visits.

Order from: USGAO, PO Box 6015, Gaithersburg, Md. 20884-6015; tel. 202/512-6000; fax 301/258-4066.

From the National Health Council:

Guide to Member Voluntary Health Agencies: 1996 (81 pp., $10), describes the activities and gives addresses, phone numbers and contacts for many of the major and minor health philanthropies, including the American Cancer Society, the American Kidney Fund, the Paget Foundation, the National Organization for Rare Disorders, etc.

Order from: National Health Council, 1730 M St. NW, Washington, DC 20036-4505; tel. 202/785-3910; fax 202/785-5923.

From the National Academy of Sciences, Institute of Medicine (IOM):

Veterans and Agent Orange: Update 1996 (approximately 350 pp., $49 for pre-publication proof copies; $39 for final version, available in May; add $4 for shipping), a follow-up to the IOM's Congressionally mandated initial report, ***Veterans and Agent Orange: Health Effects of Herbicides Used in Vietnam*** (1994; 830 pp., $79.95, plus $4 for shipping). Following publication of that study, the Department of Veterans Affairs announced that it would compensate Vietnam veterans diagnosed with non-Hodgkin's lymphoma, porphyria cutanea tarda, respiratory cancers and multiple myeloma. Described as a supplement rather than a replacement for the 1994 report, *Update 1996* says evidence has grown stronger of an association between Vietnam herbicide exposure and various cancers and other health problems, including, possibly, birth defects in veterans' children. The report was produced by a committee chaired by David Tollerud, Chief of the Division of Occupational and Environmental Medicine, Department of Environmental and Occupational Health, University of Pittsburgh.

Order from: National Academy Press, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 1-800/624-6242 or 202/334-3313.

To Order or Renew

Science & Government Report
Northwest Station, Box 6226A
Washington, D.C. 20015

☐ Renew my subscription ☐ Enter my subscription

Institutional subscribers: one year, $490.00 ☐
two years, $840.00 ☐

Non-USA airmail, $40.00 per year; non-USA surface mail, $20.00 per year additional

☐ Check enclosed ☐ Please Bill
Please charge to: ☐ MasterCard ☐ VISA

Account#_____ Exp.date _____

_____
Signature

Name _____

Address _____

_____ Zip _____

Toll-Free Subscription Service: 1-800-522-1970
In Wash., D.C.: 785-5054 / FAX: (202) 362-2790

In Print

Official reports and other publications of special interest to the research community

(Copies of publications listed here are available from the indicated sources—not from SGR)

From the National Institutes of Health:

Report of the NIH AIDS Research Program Evaluation Working Group of the Office of AIDS Research Advisory Council (66 pp., no charge), though sugared with praise for the efforts to date, this is a devastating critique of NIH's management of AIDS research, described as stingy with grants for promising investigator-initiated projects, slow in making awards, squandering funds on "activities with little or no direct relevance to AIDS," and underinvesting in vaccine development and prevention and intervention research. The report, issued March 14, calls for speedy correction of the alleged failings, but rejects creation of a separate institute for AIDS, saying the research effort should remain an NIH-wide activity. NIH Director Harold Varmus initiated the review as part of his scrutiny of many major activities at NIH. The most recent prior effort focused on gene therapy, and was similarly critical [SGR, Dec. 15, 'Gene Therapy Oversold, Study Group Advises NIH']. The AIDS review was conducted by 114 non-government specialists, including AIDS researchers, physicians, community activists, etc., chaired by Arnold J. Levine, Professor of Molecular Biology, Princeton University.

Order from: National Institutes of Health, Office of AIDS Research, Building 31, 4C-02, Bethesda, Md. 20892-2340; tel. 301/496-0357; fax 301/496-2119. The report is available on the World Wide Web: http://www.nih.gov:80/news/oarreport

---

From the National Science Foundation, no charge:

Federal Funds for Research and Development: Fiscal Years 1993, 1994, and 1995 (NSF 95-334; 290 pp), 109 tables of data on federal finance of R&D, listing sponsoring agencies, the scientific and engineering disciplines supported, distribution of funds by state, etc. Ronald L. Meeks was Project Officer for the report.

Science and Engineering Degrees: 1966-93 (NSF 95-312; 99 pp.), 63 tables covering bachelor's, master's, and doctoral degrees, with data sorted according to sex of recipients, specific fields of study, etc. Susan T. Hill was the Project Officer on this report and the following one.

Selected Data on Science and Engineering Doctorate Awards: 1994 (NSF 95-337; 87 pp.), another heap of data, most of it tracked from 1985 through 1994, covering all S&T fields, including the social sciences, with details on fields of study, sex, and citizenship. Included, too, is a state-by-state list of universities and the number of PhDs they awarded in the various fields of science and engineering.

Order from: NSF, Division of Science Resources Studies, Publications Unit, Suite 965, Arlington, Va. 22230-9966; tel. 703/306-1130; fax 703/644-4278; for instructions on electronic access: 703/306-0214.

Two recently issued reports examine the Partnership for a New Generation of Vehicles (PNGV), the Clinton Administration's multi-agency R&D collaboration with industry to advance fuel, safety, and manufacturing efficiencies and other innovations in automotive technology:

Review of the Research Program of the Partnership for a New Generation of Vehicles: Second Report (100 pp., no charge), from the National Academy of Sciences, concludes that the "technologies being pursued are relevant and appropriate to the PNGV objectives, and significant achievements have been made." The report warns, however, that the program faces "formidable technical barriers," and it also emphasizes the need for a durable and broadly based federal commitment to the program, noting that in the present fiscal year, the Department of Transportation "decided on a 'zero' contribution to PNGV." The NAS committee cited with approval the establishment of a PNGV World Wide Web site, saying it would help build public support for the program: http://picard.aero.hq.nasa.gov/index.html.

The report was produced by the NAS Standing Committee to Review the Research Program of the PNGV, chaired by Trevor R. Jones, retired Chairman of the Board, Libby-Owens-Ford Co. Mahadevan Mani headed the staff for the review.

Order from: National Academy of Sciences, Board on Energy and Environmental Systems, HA-270, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 202/334-3344; fax 202/334-3370.

The Partnership for a New Generation of Vehicles (96-191 SPR; 32 pp., no charge), a review of the history, funding, and political problems of the PNGV, from the Science Policy Research Division of the Congressional Research Service, part of the Library of Congress. The report notes that federal agencies spent $308 million on the program in fiscal 1995, with the Department of Energy accounting for half the money, while NSF, the Department of Commerce, NASA and others provided the balance. Industry funds were estimated at $100 million. The Administration sought a 20 percent increase this year, but the budget outcome is still in doubt at the halfway point of this fiscal year. The report, by Fred Sissine, notes that the program is harried by Republican opposition to federal support of industrial research. Included is a six-page list of PNGV technical programs, budgets, and sponsoring federal agencies, plus brief accounts of similar automotive research programs in the European Union and Japan.

Order through a House or Senate member. Senate switchboard, 202/224-3121; House, 202/225-3121. Cite the Congressional Research Service as the source, with report title and number.

PNGV Program Plan (48 pp., no charge), issued last November by PNGV's main Washington office, lists goals, participating research organizations, management structure, etc.

Order from: PNGV Secretariat, US Department of Commerce, Room 4845, 14th St. and Constitution Ave. NW, Washington, DC 20230; tel. 202/482-6260; fax 202/482-6275.

(Continued on Page 7)